



SLOVENSKI STANDARD

oSIST prEN 17467:2020

01-marec-2020

Podloge za športne dejavnosti - Preskusna metoda za ugotavljanje rezidualne deformacije umetnih ali organskih polnil po statični obremenitvi

Surfaces for sports areas - Test method for the determination of the residual deformation of synthetic or organic infill granules after static load

Sportböden - Prüfverfahren zur Bestimmung der Restverformung von synthetischen oder organischen Einstreugranulaten nach statischer Belastung

Sols sportifs - Méthode d'essai de détermination de la déformation résiduelle de granulats de remplissage synthétiques ou organiques après application d'une charge statique

<https://standards.iteh.ai/catalog/standards/sist/544ae0d1-e675-4501-b0f5-9025f3e01e29/osist-pren-17467-2020>

Ta slovenski standard je istoveten z: prEN 17467

ICS:

97.220.10 Športni objekti Sports facilities

oSIST prEN 17467:2020 **en,fr,de**

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EUROPEAN STANDARD
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English Version

Surfaces for sports areas - Test method for the determination of the residual deformation of synthetic or organic infill granules after static load

Sols sportifs - Méthode d'essai de détermination de la déformation résiduelle de granulats de remplissage synthétiques ou organiques après application d'une charge statique

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This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 217.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (prEN 17467:2020) has been prepared by Technical Committee CEN/TC 217 “Surfaces for sports areas”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

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1 Scope

This document describes a test method for the determination of the residual deformation and visual inspection of synthetic or organic granules used in synthetic turf for sports surfaces after static load.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 932-2, *Tests for general properties of aggregates - Part 2: Methods for reducing laboratory samples*

EN 933-1, *Tests for geometrical properties of aggregates - Part 1: Determination of particle size distribution - Sieving method*

ISO 5893, *Rubber and plastics test equipment - Tensile, flexural and compression types (constant rate of traverse) - Specification*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at <https://www.iso.org/obp>

— IEC Electropedia: available at <http://www.electropedia.org/>
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3.1

residual deformation

residual deformation is defined as the difference between the initial thickness and the thickness of a sample layer of granules measured 30 min after the removal of the load

3.2

visual inspection

visual inspection includes the assessment of conglutination and oil secretion of the granules

4 Safety

Adequate safety measures shall be in place to maintain a safe working area in accordance with appropriate regulations.

5 Method

5.1 Test equipment

5.1.1 A loading device in accordance with ISO 5893 to bring a load with a constant speed; 5 mm/min, tol +/- 0,1 mm/min.

5.1.2 Pressure foot; circular/flat with a diameter of minimum 28 mm and maximum 32 mm.

5.1.3 Two polished rectangular steel plates; dimensions 150 mm x 60 mm (± 5 mm), thickness 12 mm (± 1 mm). One plate has on the narrow sides in each case one bolt with an M10 thread upwards and in the middle of the upward surface a mark of 80 mm x 30 mm (2 400 mm²). The other plate has recesses on the narrow sides for the screw threads of the first plate. See Figure 1.

5.1.4 A polished aluminium plate; dimensions 110 mm x 65 mm (± 5 mm), thickness 0,5 mm, ($\pm 0,1$ mm).

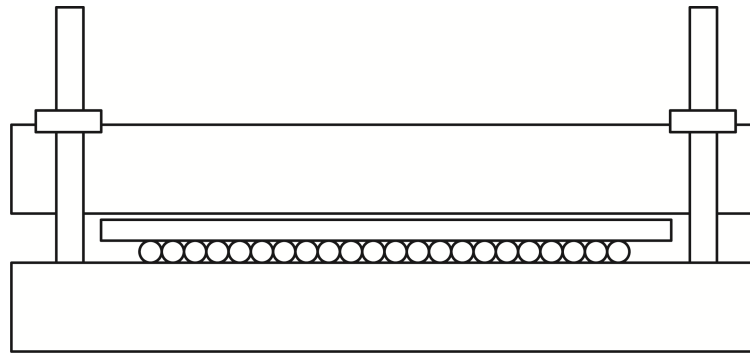


Figure 1 — Schematic view of sample holder

5.2 Test samples

5.2.1 Test specimens shall be obtained in accordance with EN 932-2. For each test specimen the mass shall be 120 % to 170 % of the mass needed to fill the marked area on the steel plate.

5.2.2 Ideally the test sample will be of a single layer of granules that fully covers the inside area of the marked 80 mm x 30 mm on the surface of the steel plate. However, the particle size distribution of the granules is often graded, and some accumulation of the granules may occur. Therefore, the thickness of the sample layer shall be ± 20 % of the maximum grain size D.

5.3 Conditioning

5.3.1 When necessary, pre-condition the laboratory sample in a ventilated oven with a temperature not exceeding 40 °C for at least 24 h. Preconditioning is required if the sample is moist or wet, for example, as a result of sampling outdoors.

5.3.2 Condition the laboratory sample and testing equipment at a temperature of $23 \pm 2^\circ$ C for a minimum of 24 h prior to the test procedure.

5.3.3 Tests shall be made at an ambient laboratory temperature of $23 \pm 2^\circ$ C.

5.4 Test procedure

5.4.1 Determine the minimum particle size D and the maximum particle size D of the laboratory sample according to EN 933-1.

5.4.2 Using a loading machine, measure a load of $4800N \pm 50N$ (2 N/mm^2) the thickness (T_a) of the combination of the steel under plate and the aluminium plate with the pressure foot in the centre of the sample holder. Denote T_a .